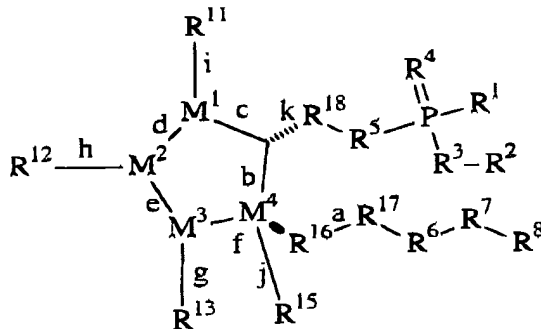


AMENDMENTSIn the Claims

Please amend Claims 1 to 33 as follows:

1. (Once Amended) A 2-decarboxy-2-phosphinico prostaglandin compound having a structure selected from the group consisting of:



wherein bond a is selected from the group consisting of a single bond, a *trans* double bond, and a triple bond;

each of bonds b, c, d, e, and f are independently selected from the group consisting of a single bond and a double bond;

each of bonds g, h, i, and j are independently selected from the group consisting of nil, a single bond, and a double bond;

bond k is selected from the group consisting of a single bond and a double bond;

R¹ is selected from the group consisting of a hydrogen atom, a monovalent hydrocarbon group having 1 to 4 carbon atoms, and a monovalent heterogenous group having 1 to 4 member atoms;

R² is selected from the group consisting of a hydrogen atom, a monovalent hydrocarbon group, a substituted monovalent hydrocarbon group, a monovalent heterogeneous group, a substituted monovalent heterogeneous group, a carbocyclic group, a substituted carbocyclic group, a heterocyclic group, a substituted heterocyclic group, an aromatic group, a substituted aromatic group, a heteroaromatic group, and a substituted heteroaromatic group;

R³ is selected from the group consisting of an oxygen atom, a sulfur atom, and NH;

R⁴ is selected from the group consisting of an oxygen atom and a sulfur atom;

R⁵ is a divalent group selected from the group consisting of a hydrocarbon group, a substituted hydrocarbon group, a heterogeneous group, and a substituted heterogeneous group;

R⁶ is nil or a divalent group selected from the group consisting of -CH₂-, -C(O)- and -C(R¹⁰)(OR¹⁰)-;

R⁷ is nil or a divalent group having the formula -(CD(D))_p-X-(CD(D))_q-, wherein p is an integer from 0 to 3 and q is an integer from 0 to 3, X is selected from the group consisting of

an oxygen atom, a divalent hydrocarbon group, a sulfur atom, SO, SO₂, and ND, and each D is independently selected from the group consisting of a hydrogen atom, a monovalent hydrocarbon group of 1 to 4 carbon atoms, and a monovalent heterogenous group of 1 to 4 member atoms;

R⁸ is selected from the group consisting of a hydrocarbon group, a substituted hydrocarbon group, a heterogenous group, a substituted heterogenous group, a carbocyclic group, a substituted carbocyclic group, a heterocyclic group, a substituted heterocyclic group, an aromatic group, a substituted aromatic group, a heteroaromatic group, and a substituted heteroaromatic group;

R⁹ is selected from the group consisting of a hydrogen atom, a monovalent hydrocarbon group of 1 to 4 carbon atoms, and a monovalent heterogenous group of 1 to 4 member atoms;

R¹⁰ is selected from the group consisting of a hydrogen atom, a monovalent hydrocarbon group of 1 to 4 carbon atoms, and a monovalent heterogenous group of 1 to 4 member atoms;

M¹, M², M³, and M⁴ are each independently selected from the group consisting of a carbon atom and a heteroatom, with the proviso that no two heteroatoms may be adjacent;

R¹¹, R¹², R¹³, and R¹⁵ are each independently selected from the group consisting of nil, a halogen atom, a heteroatom, and R², with the provisos that

optionally, R¹¹ and R¹², R¹² and R¹³, or R¹¹ and R¹³ may be bonded together to form a ring structure such as a carbocyclic group, a heterocyclic group, an aromatic group, a heteroaromatic group, a substituted carbocyclic group, a substituted heterocyclic group, a substituted aromatic group, or a substituted heteroaromatic group,

when R¹¹ is OR⁹, R¹² is a hydrogen atom, and M² is a carbon atom; R¹³ is not a hydrogen atom, OR⁹, a monovalent hydrocarbon group of 1 to 4 carbon atoms, a monovalent heterogenous group of 1 to 4 carbon atoms, a substituted monovalent hydrocarbon group of 1 to 4 carbon atoms, or a substituted monovalent heterogenous group of 1 to 4 carbon atoms,

R¹³ is not N(R⁹)(OR⁹) when bond g is a single bond and R¹³ is not NOR⁹ when bond g is a double bond, and

R¹³ is not OR⁹ when R¹¹ is OR⁹; M¹, M², M³, and M⁴ are each carbon atoms, and R¹² is a hydrogen atom;

R¹⁶ is selected from the group consisting of -CH₂-, -NH-, and -NR¹⁹-, wherein R¹⁹ is selected from the group consisting of hydrocarbon groups, substituted hydrocarbon groups, heterogenous groups, and substituted heterogenous groups; with the proviso that R¹⁹ may optionally be bonded together with R⁸ to form a ring structure selected from the group consisting of heterocyclic groups and substituted heterocyclic groups;

R¹⁷ is selected from the group consisting of -SO₂-, C(O)-, and -CH₂-;

R¹⁸ is selected from the group consisting of a sulfur atom and -CH₂-; and

an optical isomer of the structure described above, a diastereomer of the structure, an enantiomer of the structure, a pharmaceutically-acceptable salt of the structure, a biohydrolyzable amide of the structure, a biohydrolyzable ester of the structure, and a biohydrolyzable imide of the structure.

2. (Once Amended) The compound of claim 1, wherein R^1 is selected from the group consisting of a hydrogen atom and a monovalent hydrocarbon group.

3. (Once Amended) The compound of claim 2, wherein R^1 is a monovalent hydrocarbon group having 1 to 3 carbon atoms.

4. (Once Amended) The compound of claim 3, wherein R^1 has 1 to 2 carbon atoms.

5. (Once Amended) The compound of claim 4, wherein R^1 has 1 carbon atom.

6. (Once Amended) The compound of claim 2, wherein R^1 is a hydrogen atom.

7. (Once Amended) The compound of claim 1, wherein R^2 is a hydrogen atom.

8. (Once Amended) The compound of claim 1, wherein R^3 is an oxygen atom.

9. (Once Amended) The compound of claim 1, wherein R^4 is an oxygen atom.

10. (Once Amended) The compound of claim 1, wherein R^5 is a hydrocarbon group having 1 to 5 carbon atoms in its chain.

11. (Once Amended) The compound of claim 10, wherein R^5 has a *cis* double bond at position C_5 - C_6 position.

12. (Once Amended) The compound of claim 1, wherein R^6 is $-C(R^{10})(OR^{10})-$.

13. (Once Amended) The compound of claim 1, wherein R^7 is selected from the group consisting of $-CH_2O-$, $-CH=CH-$, $-CH=C=CH-$, $-CH_2S-$, $-CH_2CH_2-$, $-CH_2NH-$, $-CH_2NCH_2-$, and $-CH_2O(CH_2)_3O-$.

14. (Once Amended) The compound of claim 1, wherein R^8 is selected from the group consisting of a methyl group, aromatic groups, substituted aromatic groups, heteroaromatic groups, and substituted heteroaromatic groups.

15. (Once Amended) The compound of claim 1, wherein R^{10} is selected from the group consisting of a hydrogen atom and a monovalent hydrocarbon group of 1 to 4 carbon atoms.

16. (Once Amended) The compound of claim 1, wherein bond a is selected from the group consisting of a single bond and a *cis* double bond

17. (Once Amended) The compound of claim 1, wherein 0 to 1 of bonds b, c, d, e, and f is a double bond.

18. (Once Amended) The compound of claim 1, wherein bond h is a single bond.

19. (Once Amended) The compound of claim 1, wherein bond k is a single bond.

20. (Once Amended) The compound of claim 19, wherein one of M^1 , M^2 , M^3 , and M^4 is a heteroatom.

21. (Once Amended) The compound of claim 19, wherein M^1 , M^2 , M^3 , and M^4 are each carbon atoms.

22. (Once Amended) The compound of claim 1, wherein R^{12} is a hydrogen atom.

23. (Once Amended) The compound of claim 1, wherein R^{11} is selected from the group consisting of a hydrogen atom, an oxygen atom, and OR^9 .

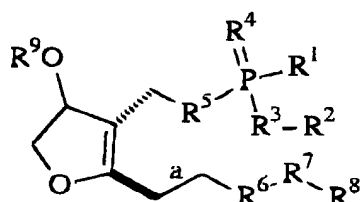
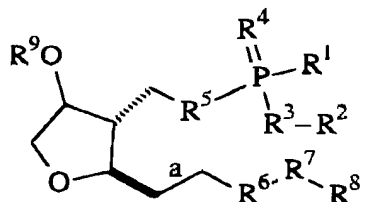
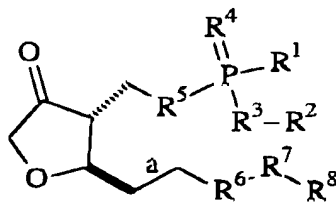
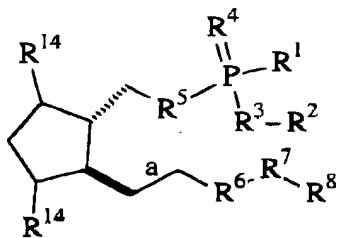
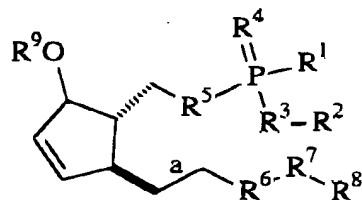
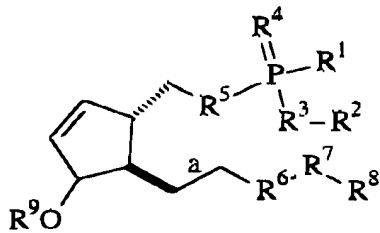
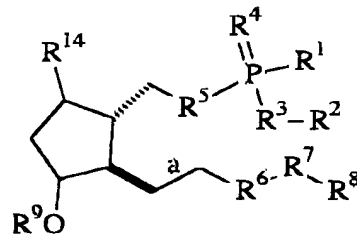
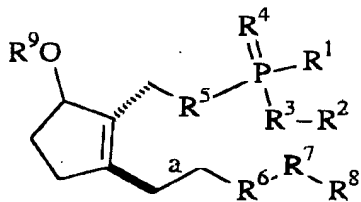
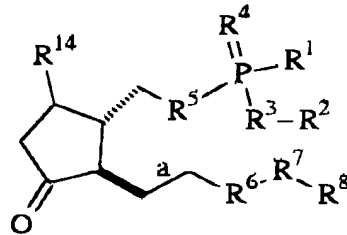
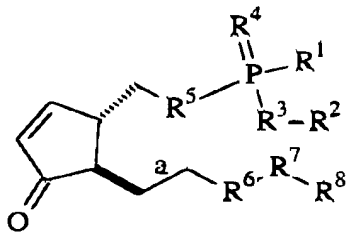
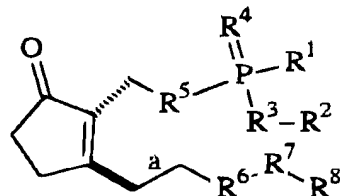
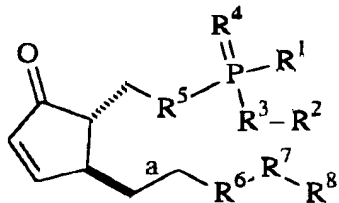
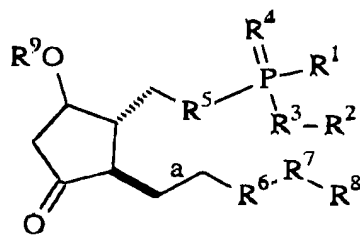
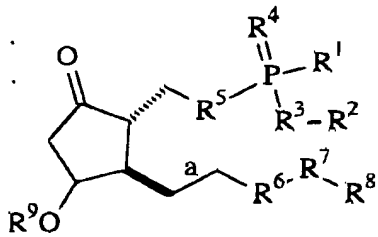
24. (Once Amended) The compound of claim 1, wherein R^{13} is selected from the group consisting of a hydrogen atom, an oxygen atom, and OR^9 .

25. (Once Amended) The compound of claim 1, wherein R^{16} is $-CH_2-$.

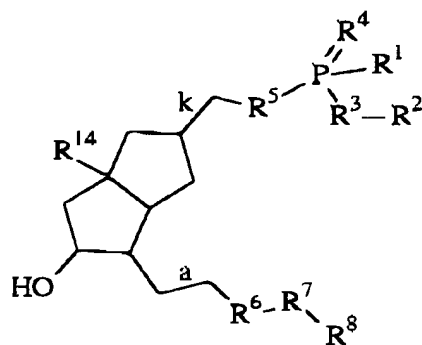
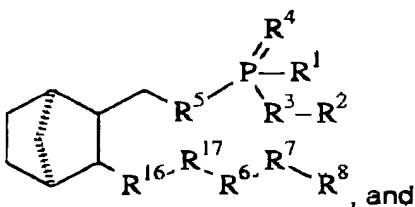
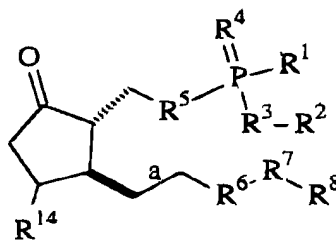
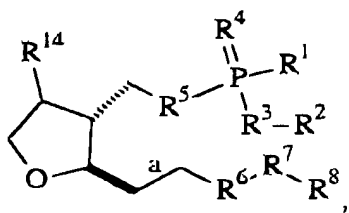
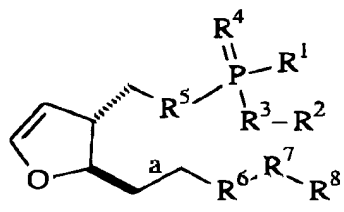
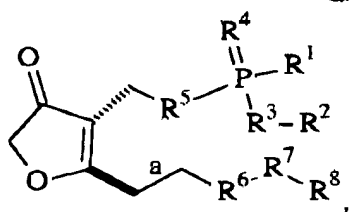
26. (Once Amended) The compound of claim 1, wherein R^{17} is $-CH_2-$.

27. (Once Amended) The compound of claim 1, wherein R^{18} is $-CH_2-$.

28. (Once Amended) The compound of claim 1, wherein the derivative has a structure selected from the group consisting of:

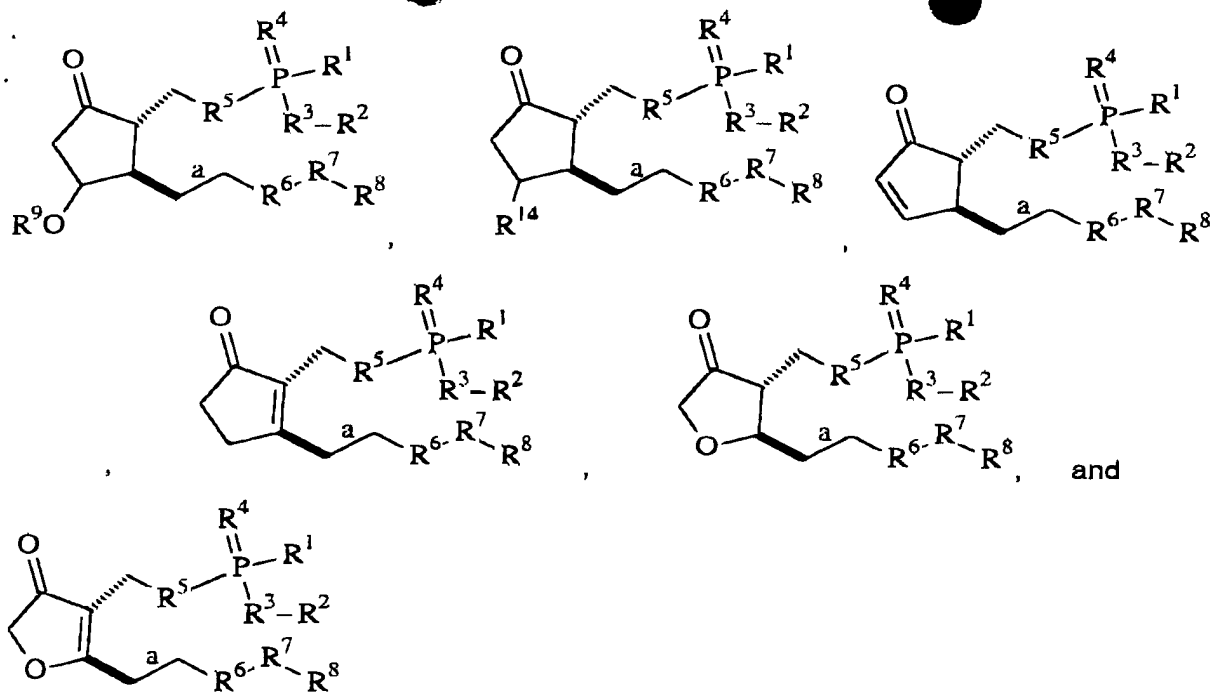


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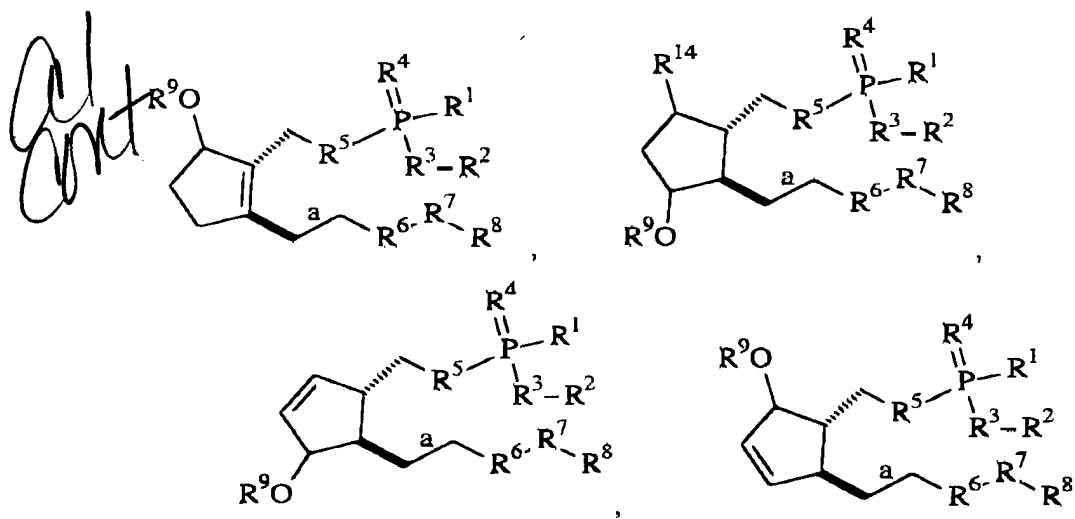


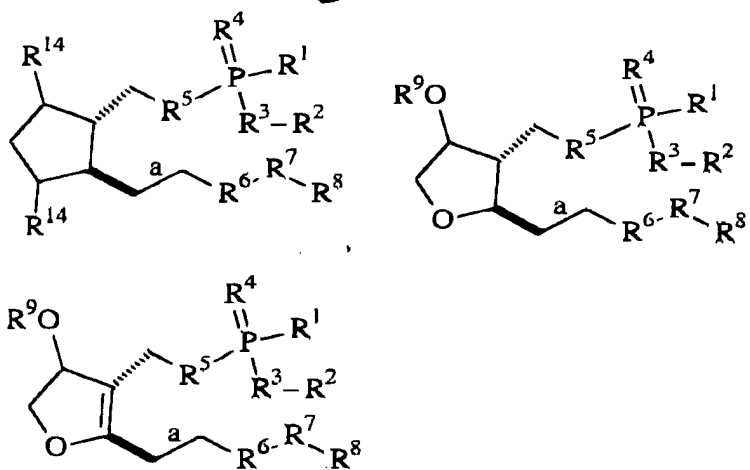
wherein R^{14} is independently selected from the group consisting of nil, a hydrogen atom, a halogen atom, a monovalent hydrocarbon group of 1 to 4 carbon atoms, and a monovalent heterogenous group of 1 to 4 member atoms.

29. (Once Amended) The compound of claim 28, wherein the derivative is a prostaglandin E derivative having a structure selected from the group consisting of:

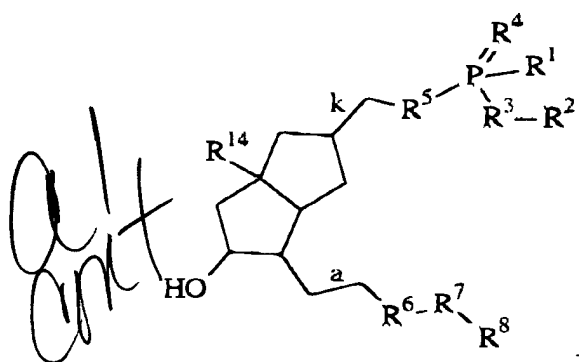


30. (Once Amended) The compound of claim 28, wherein the derivative is a prostaglandin F derivative having a structure selected from the group consisting of:

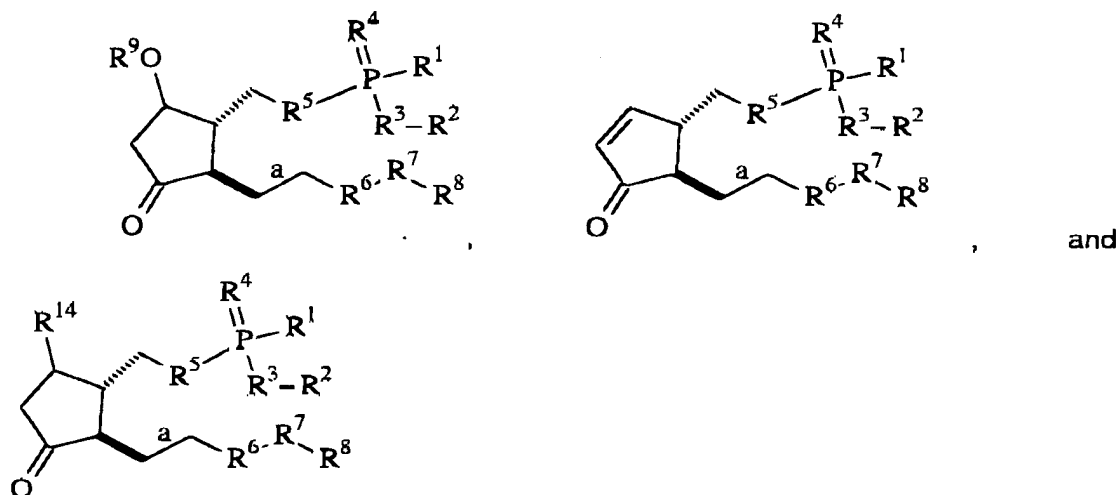




31. (Once Amended) The compound of claim 28, wherein the derivative is a prostaglandin I derivative having the structure:



32. (Once Amended) The compound of claim 28, wherein the derivative is a prostaglandin D derivative selected from the group consisting of:



33. (Once Amended) The compound of claim 28, wherein the derivative is a thromboxane having the structure:

